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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/797,037	03/11/2004	Yasuaki Nozawa	0171-1068P	4654
2292 7590 03/09/2007 BIRCH STEWART KOLASCH & BIRCH PO BOX 747 FALLS CHURCH, VA 22040-0747			EXAMINER HANDAL, KAITI V	
			ART UNIT 1764	PAPER NUMBER

SHORTENED STATUTORY PERIOD OF RESPONSE	NOTIFICATION DATE	DELIVERY MODE
3 MONTHS	03/09/2007	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

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Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary

Application No.

10/797,037

Applicant(s)

NOZAWA ET AL.

Examiner

Kaity Handal

Art Unit

1764

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11 December 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☐ Claim(s) _____ is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-12 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
 - 2) ☐ Certified copies of the priority documents have been received in Application No. _____.
 - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

1. Claims 1-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Klebe et al. (4,503,092) and Schutte et al. (DE 1,163,784) in view of Belligoi et al. (US 6,103,004).

With respect to claims 1-12, Klebe et al. discloses an apparatus for the hydrophobization of pyrogenically produced silica comprising: a means for pyrolyzing/burner, (1) to form silica; a coagulation zone/means for agglomerating, (2); a series of cyclones (4, 5, 6); a fluidization vessel (11) which can hydrophobize and deacidify (col. 3, lines 35- 36); and a second cyclone (8) connected to an output (13) of the fluidization vessel (11); and a conduit network extending between the second cyclone (8) and the deacidifying section (inside vessel (11)) or the device for removing halogen gas, the conduit network providing a flow path for returning hydrophobic silica collected by the second cyclone and/or the second filter to the deacidifying section or the device for removing halogen gas (as illustrated).

Klebe et al. has incorporated by reference the Schutte et al. patent.

Schutte et al. discloses wherein the deacidification and hydrophobization can take place in separate zones as well as in a single zone (col. 4, lines 54-60).

Art Unit: 1764

Therefore, it is disclosed that it is known in the art that the hydrophobizing and deacidifying can be divided.

Klebe et al. fails to disclose wherein the apparatus also comprises filters.

Belligoi et al. teaches that pyrogenically prepared silica (col. 2, lines 19-23) can be separated from solids using a cyclone followed by a filter (col. 2, lines 33-40). It would have been obvious to one of ordinary skill in the art at the time the invention was made to also provide filters along with the cyclones in the device of Klebe et al. in order to achieve a desired level of separation as well as since filters are recognized by Belligoi et al. as a known separation means for pyrogenically prepared silica. Although the recitations of operational temperatures and velocities continue to be directed to a manner of operating the claimed device, and thus amount recitations of intended use (the manner of operating a device does not differentiate apparatus claims from the prior art; MPEP 2114), Schutte et al. further discloses operating temperatures of the device of 200°C to 800°C, especially 400°C-600°C (col. 3, line 48- col. 4, line 5) and velocities of about 2.0 cm/sec (col. 7, lines 26-36).

Response to Arguments

Prior Art rejection

2. Applicant's arguments, see Remarks, filed 12/11/2006, with respect to the rejection(s) of claim(s) 1-8 under 35 USC § 103 have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further

Art Unit: 1764

consideration, a new ground(s) of rejection is made in view of Belligoi et al. (US 6,103,004).

Applicant submits that the disclosure of Schutte et al. would lead a person of ordinary skill in the art away from a construction of the Klebe et al. apparatus that employs a fluidization vessel having hydrophobizing and deacidifying sections that are divided, as recited in Applicant's claims. Examiner respectfully disagreed. The disclosure made by Schutte et al. suggests that it is known in the art that the deacidification and hydrophobization can take place in separate zones as well as in a single zone (col. 4, lines 54-60) and, therefore, it is disclosed that the hydrophobizing and deacidifying can be divided.

Applicant argues that

"in the Klebe et al. process and apparatus, the reaction waste gases, consisting of hydrophobized silica, dimethyldichlorosilane, hydrogen chloride, nitrogen and steam are returned via line 13 and introduced to the suction side line of the conveying apparatus 7. On the other hand, in Applicant's disclosed and claimed inventive apparatus, the hydrophobic silica fine powder which flies out of both the hydrophobizing and deacidifying sections of the fluidization vessel is collected by the second cyclone and the second filter, and the thus-collected hydrophobic silica is returned to the deacidifying section or device. Applicant's apparatus is therefore quite different from the Klebe et al. apparatus."

Examiner respectfully disagrees. The claim uses "comprising" which is open transitional language and does not exclude a reference from having more elements than those recited in the instant claims.

The transitional phrases "comprising", "consisting essentially of" and "consisting of" define the scope of a claim with respect to what unrecited additional components or steps, if any, are excluded from the scope of the claim.

The transitional term "comprising", which is synonymous with "including," "containing," or

Art Unit: 1764

"characterized by," is inclusive or open-ended and does not exclude additional, unrecited elements or method steps. See, e.g., > Mars Inc. v. H.J. Heinz Co., 377 F.3d 1369, 1376, 71 USPQ2d 1837, 1843 (Fed. Cir. 2004) ("like the term comprising,' the terms containing' and mixture' are open-ended.").< Invitrogen Corp. v. Biocrest Mfg., L.P., 327 F.3d 1364, 1368, 66 USPQ2d 1631, 1634 (Fed. Cir. 2003) ("The transition comprising' in a method claim indicates that the claim is open-ended and allows for additional steps."); Genentech, Inc. v. Chiron Corp., 112 F.3d 495, 501, 42 USPQ2d 1608, 1613 (Fed. Cir. 1997) ("Comprising" is a term of art used in claim language which means that the named elements are essential, but other elements may be added and still form a construct within the scope of the claim.); Moleculon Research Corp. v. CBS, Inc., 793 F.2d 1261, 229 USPQ 805 (Fed. Cir. 1986); In re Baxter, 656 F.2d 679, 686, 210 USPQ 795, 803 (CCPA 1981); Ex parte Davis, 80 USPQ 448, 450 (Bd. App. 1948) ("comprising" leaves "the claim open for the inclusion of unspecified ingredients even in major amounts"). >In Gillette Co. v. Energizer Holdings Inc., 405 F.3d 1367, 1371-73, 74 USPQ2d 1586, 1589-91 (Fed. Cir. 2005), the court held that a claim to "a safety razor blade unit comprising a guard, a cap, and a group of first, second, and third blades" encompasses razors with more than three blades because the transitional phrase "comprising" in the preamble and the phrase "group of" are presumptively open-ended. "The word comprising' transitioning from the preamble to the body signals that the entire claim is presumptively open-ended." Id. In contrast, the court noted the phrase "group consisting of" is a closed term, which is often used in claim drafting to signal a "Markush group" that is by its nature closed. Id. The court also emphasized that reference to "first," "second," and "third" blades in the claim was not used to show a serial or numerical limitation but instead was used to distinguish or identify the various members of the group. Id.<

Art Unit: 1764

Therefore, the reaction waste gases, consisting of hydrophobized silica, dimethyldichlorosilane, hydrogen chloride, nitrogen and steam returned via line (13) and introduced to the suction side line of the conveying apparatus (7) and returning to cyclone (8) and back into fluidized bed reactor (11) meets the limitations of claims 1 and 9.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kaity Handal whose telephone number is (571) 272-8520. The examiner can normally be reached on M-F 8-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Glenn Caldarola can be reached on (571) 272-1444. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Application/Control Number: 10/797,037

Page 7

Art Unit: 1764


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2/27/2007



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